

उत्तरांचल शासन  
शहरी विकास विभाग  
संख्या : 3173/V-श0वि0/2006  
देहरादून : दिनांक 30 अगस्त, 06.

कार्यालय-ज्ञाप


गत वर्ष, नगर विकास विभाग को, विभिन्न नगर निकायों से सी0सी0 सड़कों के तथा टाईल्स पर आधारित नगर निकायों के प्रस्ताव प्राप्त हुए। उपरोक्त प्रस्तावों पर टी0ए0सी0 के अनुमोदन के पश्चात नगर निकायों को धनराशि समय-समय पर उपलब्ध कराई गयी।

कालान्तर में, गुण-अवगुण के आधार पर, नीतिगत निर्णय यह लिया गया कि उत्तरांचल में टाईल्स की ही सड़कें/सम्पर्क मार्ग बनाये जायेंगे क्योंकि सी0सी0 सड़कों की गुणवत्ता तथा Curing नहीं सुनिश्चित हो पाती है।

इस हेतु नगर विकास ने, लोक निर्माण विभाग से पैदल मार्ग, स्कूटर सम्पर्क मार्ग, हल्के वाहन सम्पर्क मार्ग तथा भारी वाहन सम्पर्क मार्ग के लिए मानक/आगणन (Standard Estimate) बनवाया। उपरोक्त आगणन, नगर निकायों के लिए बनवाया गया।

अब, जिन नगर निकायों के लिए सी0सी0 मार्ग इत्यादि के लिए धनराशि अवमुक्त की गई उनके द्वारा यह जिज्ञासा की गयी थी-

1. क्या इसका नया आगणन बनाना पड़ेगा?
2. क्या उपरोक्त व्यवस्था मात्र नगर विकास विभाग के अवस्थापना निधि से जारी धनराशि के लिए है अथवा समाज कल्याण विभाग, 12वें वित्त आयोग, दैवीय आपदा प्रबन्धन, सांसद/विधायक निधि, पर्यटन, रिवाल्विंग फण्ड (तथा भविष्य में द्वितीय वित्त आयोग) द्वारा प्रदत्त धनराशि के लिए भी लागू है?
3. उपरोक्त धनराशि के उपयोग की किस प्रकार से व्यवस्था की जायेगी?

  
30/8/2006

6. कृपया इस बात का अवश्य ध्यान रखा जाय कि टाईल्स की गुणवत्ता में कोई समझौता न किया जाय। यह जिम्मेवारी नगर निकाय के अध्यक्ष, अधिशासी अधिकारी एवम् अभियन्ता की होगी।
7. यह आदेश वित्त विभाग की सहमति (पत्रावली संख्या: 0162/कैम्प-स0न0वि0/06 पर) के उपरान्त जारी किये जा रहे हैं।

(अमरेन्द्र सिन्हा)  
सचिव।

**संलग्नक-** 1. मुख्य अभियन्ता, लो0नि0वि0, की टिप्पणी।  
2. लोक निर्माण विभाग के Specifications, दरें तथा डिजाईन।

संख्या : 3173/V-श0वि0/ 30/8 /2006 तद दिनांकित।

प्रतिलिपि :- समस्त सम्बन्धित एवं निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित:-

1. निजी सचिव, मा0 मंत्री जी, नगर विकास, उत्तरांचल को सूचनार्थ।
2. निजी सचिव, मुख्य सचिव, उत्तरांचल शासन को सूचनार्थ।
3. निजी सचिव, अवस्थापना विकास आयुक्त, उत्तरांचल शासन को सूचनार्थ।
4. आयुक्त, कुमायूँ मण्डल/आयुक्त गढ़वाल मण्डल, उत्तरांचल।
5. समस्त जिलाधिकारी, उत्तरांचल।
6. निदेशक, शहरी विकास निदेशालय, देहरादून, उत्तरांचल।
7. समस्त अध्यक्ष, नगर निकाय, उत्तरांचल।
8. समस्त अधिशासी अधिकारी, नगर निकाय, उत्तरांचल।
9. मुख्य नगर अधिकारी, नगर निगम, देहरादून।
10. निदेशक, एन0आई0सी सचिवालय परिसर, देहरादून।
11. राज्य डाटा सेन्टर, रुड़की।
12. गार्ड फाईल।

आज्ञा से,  
(अमरेन्द्र सिन्हा)  
सचिव।



- (iv) The block pavements are ideal for intersections where speeds have to be restricted and cornering stresses are high.
- (v) The digging and reinstatement of trenches for repairs to utilities is easier in the case of block pavement.
- (vi) These pavements are unaffected by the spillage of oil from vehicles, and are ideal for bus stops, bus depots and parking areas.
- (vii) They are preferred in heavily loaded areas like container depots and ports as they can be very well designed to withstand the high stresses induced there.
- (viii) In India, the laying of concrete block pavements can be achieved at a low cost because of the availability of cheap labour.
- (ix) Since the concrete blocks are grey in colour, they reflect light better than the black bituminous pavements, thus bringing down the cost of street lighting.
- (x) The cost of maintenance is much lower than a bituminous surface.
- (xi) Block pavement does not need in-situ curing and so can be opened to traffic soon after completion of construction.
- (xii) Construction of block pavement is simple and labour-intensive, and can be done using simple compaction equipment.
- (xiii) Maintenance of block pavement is simple and easy. Also, the need for frequency of maintenance is low as compared to bituminous pavement.
- (xiv) Structurally round blocks can be recycled many times over.
- (xv) Unlike concrete pavements, block pavement does not exhibit very deterioratory effect due to thermal expansion and contraction, and free from the cracking phenomenon.
- (xvi) Use of permeable block pavement in cities and towns can help replenish depleting underground sources of water, filter pollutants before they reach open water sources, help reduce storm water runoff and decrease the quantum of drainage structures.

Interlocking Concrete Block Pavement का typical cross

section प/ग पर दृष्टव्य हैं ।

विभिन्न प्रकार के Interlocking Concrete Block Pavement जैसे—  
फुटपाथ, साइकिल ट्रेक, स्कूटर, हल्के वाहन तथा ट्रक व Commercial Vehicle एवं केसी

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30/8/2026



# RATES (BASED ON BASIC RATES OF DEHRADUN) INTERLOCKING CONCRETE TILES PAYMENTS FOR VARIOUS USE

S.N	Type of use of Interlocking tiles	Structural Components	Thickness in MM	Overall thickness in MM	Unit	RATE (in Rs.)	REMARK
1	PEDESTRAIN (a) Footpath/cycle track	SUB BASE- R.B.M. Drainage layer BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 50 30 60	290	Sqm.	580.00 ✓	NOTE: (a) These rates are given for guidance & estimating purpose only.
	(b) Road side raised Footpath (1.50M wide)	SUB BASE- R.B.M. Drainage layer BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 50 30 60	290	Metre	1100.00 ✓	(b) Rates are derived on basic rates for DEHRADUN approved by S.E. 24 in circle P.W.D. Dehradun.
2	SCOOTER	SUB BASE- R.B.M. Drainage layer BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 75 50 75	350	Sqm.	720.00 ✓	(c) Rates can be used for estimating at rail head and other plane area, eg- Dehradun, Rishikesh, Haridwar, Kashwar, Ramnagar, Khatgodam, Tankpur.
3	LIGHT VEHICLE	SUB BASE- R.B.M. Drainage layer W.B.M BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 75 100 50 75	450	Sqm.	820.00 ✓	(d) Rates for Hill area Attributed Distance Index can be added on these rates as per P.W.D.
4	TRUCKS/COMMERCIAL VEHICLE	SUB BASE- R.B.M. Drainage layer W.B.M BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking Co. tiles (M-30)	150 150 100 50 100	550	Sqm.	1025.00 ✓	C.E.-1's letter No.1067/55Bharan 2005 Dt.12/12/2005
5	K.C.DRAIN	650mm wide (M-20) kerb stone 400x300x150MMx40MM thick cc 1:2:4 over 100mm thick M-100 Brick work (1:1:6 with 75mm thick base cc 1:3:6 in 500 mm width)			Sqm.	535.00 ✓	(e) For estimation rates of different items shall be derived on local P.W.D. Schedule of Rates of Market Rates which are less.

Executive Engineer  
Provincial Division  
P.W.D., Dehra Dun

CE

24 अक्टूबर, 2017

अधीक्षक, नगर विकास विभाग, देहरादून

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**RATES AT DEHRADUN**

S. No.	Item of Works	Rates of Dehradun	Price escalation	Total Rate (3+4)
1.	Earthwork in excavation/embankment	Rs. 114.00/Cum	-	Rs. 114.00/Cum
2.	Granular subbase (Soling coat)	Rs. 640.00/Cum	-	Rs. 640.00/Cum
	R.B.M.	Rs. 377.00/Cum	-	Rs. 377.00/Cum
	Cement Concrete (M-5)	-	-	Rs. 1758.00/Cum
3.	Cement concrete (M-7.50)	Rs. 1880.00/Cum	Difference in cost of cement (250 - 198 = 52) per bag for 3.43 bags = Rs. 178.00	Rs. 2058.00/Cum
4.	C.C. (M-10) Rate for M-15 = Rs. 2650.00 Deduct cost of cement (6.62-4.49) bags @ 198.00/bag (-) Rs. 422.00 Total Rs. 2228.00	2228.00/Cum	Add as above item No.3 for 4.49 bags @ 52 = Rs. 233.00	Rs. 2461.00/Cum
5.	C.C. (M-15)	Rs. 2650.00	Add as above item No.3 for 6.62 bags @ 52 = Rs. 344.00	Rs. 2994.00/Cum
6.	M-100 Brick work in 1:6	Rs. 1790.00	Add as above item No.3 for 1.26 bags @ 52 = Rs. 65.00	Rs. 1855.00/Cum
7.	S/P Kerb stone (M-20) 400x300x150mm	Rs. 60.00 (Market Rate)	Add as above item No.3 for 0.15 bags @ 52 = Rs. 7.80	Rs. 67.80 Say 68.00 each
8.	Sand (For bed / joints)	Rs. 626.00/Cum	-	Rs. 626.00/Cum
9.	Interlocking Concrete tiles (In Two Hexagonal shape @ 31 Nos./Sqm) M-30 (a) 60mm thick (b) 75mm thick (c) 80mm thick (d) 100mm thick	Market Rate	- - - -	Rs. 10.00 each Rs. 12.00 each Rs. 13.00 each Rs. 16.00 each

*[Signature]*  
**ASSISTANT ENGINEER**  
**PROVINCIAL DIVISION**  
**P.W.D., DEHRADUN**

*[Signature]*  
**Executive Engineer**  
**Provincial Division**  
**P.W.D., Dehra Dun**



(C-7) Light Vehicle

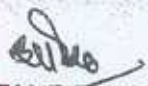
(a)	Excavation /Subgrade 1.00x1.00x0.450 = 0.450 Cum @ Rs. 114.00/Cum	Rs. 51.30
(b)	RBM Drainage layer 0.150 Cum @ Rs. 377.00/Cum WBM 0.075 Cum @ Rs. 1758.00/Cum	Rs. 56.55 Rs. 50.62
(c)	C.C. (M-5.00) 1.00x1.00x0.10 = 0.10 Cum @ Rs. 1758.00/Cum	Rs. 175.80
(d)	P/F 75mm thick interlocking tiles with sand in bed & joints (Bed 50mm)	Rs. 492.00
Total		Rs. 826.27/Sqm
Say		Rs. 820.00/Sqm


(D) Commercial Traffic / Trucks etc.

(a)	Excavation /Subgrade 1.00x1.00x0.550 = 0.55 Cum @ Rs. 114.00/Cum	Rs. 62.70
(b)	R.B.M. Drainage Layer 1.00x1.00x0.50 = 0.50 Cum @ Rs. 377.00/Cum	Rs. 56.55
(c)	WBM 1.00x1.00x0.15 = 0.15 Cum @ Rs. 640.00/Cum	Rs. 96.00
(d)	C.C. (M-5.00) 1.00x1.00x0.10 = 0.10 Cum @ Rs. 1758.00/Cum	Rs. 175.80
(e)	P/F 100mm thick interlocking tiles with sand in bed & joints (Bed 50mm)	Rs. 634.00
Total		Rs. 1025.05/Sqm
Say		Rs. 1025.00/Sqm

(E) Construction of K.C. Drain

(a)	Excavation 1.00x0.65 x 0.30 = 0.195 Cum @ Rs. 114.00/Cum	Rs. 22.23
(b)	C.C. (M-10) 1.00x0.65x0.075 = 0.049 Cum @ Rs. 2461.00/Cum	Rs. 120.59
(c)	Brick Work 1.00x 0.50x0.115 = 0.0575 Cum @ Rs. 1855.00/Cum	Rs. 106.66
(d)	Kerb stone (C.C. M-20) 400x300x150mm size = 3.33 Nos. @ Rs. 68.00/each	Rs. 226.44
(e)	C.C. (M-15) 1.00x0.50x0.04 = 0.02 Cum @ Rs. 2994.00/Cum	Rs. 59.88
Total		Rs. 535.00/RM
Say		Rs. 535.00/RM

  
ASSISTANT ENGINEER  
PROVINCIAL DIVISION  
P.W.D., DEHRADUN

  
Executive Engineer  
Provincial Division  
P.W.D., Dehra Dun,

(बी. जी. लाल मिश्र)  
मुख्य अभियंता, प.व.डी. (वि.)  
उत्तरांचल, शारन

10/08/06

(13)



(7)

P/F 60mm thick interlocking concrete tiles (M-30) with cost of sand in bed and joints including cost of all material, labour, T&P complete (Sand bed 30mm thick)

(Taking area 50 Sqm)

(A) Material

(i) Tri Hexagonal interlocking concrete tiles  
(50x31) = (1550 Nos. + 10% Wastage)  
= 1750 Nos. @ Rs. 10.00/Each

Rs. 17500.00

(ii) Sand (in Bed & joints)  
0.03x50 = 1.50

10% for joints = 0.15

Total = 1.65

Add 2% wastage = 0.03

Total 1.68 @ Rs. 626.00

Rs. 1051.68

Total Rs. 18551.68

(B) Labour

Pavior 1 No. @ Rs. 163.00 163.00

Helper 1 No. @ Rs. 112.00 112.00

L.S. for T&P /Vibrating plate capacitor 100.00

Total 375.00

Add 10% C.P. 37.50

Total 412.50

Rs. 412.50

(C) Water charges @ 1.5% on (A+B)

Rs. 284.46

(D) Edge restraint (C.C. M-15)

(2x10.00+2x5.00) x 0.10x0.125 = 0.375 Cum @ Rs.2994.00/Cum Rs. 1122.75

Total (A+B+C+D) Rs. 20371.39

Hence Rate Per Sqm 20371.39 / 50

Rs. 407.42/Sqm

Say Rs. 407.42/Sqm

2. Same as above but 75mm thick over 50mm sand Bed

(i) Interlocking tiles 1750 Nos. @ (12-10) /each Rs. 3500.00

(ii) Sand (2.75 - 1.68 cm) @ Rs. 626.00/each Rs. 669.32

(iii) Water charges 1.5% on (i+ii) Rs. 62.55

Total Rs. 232.37 or

8.5/Sqm

Net Rat (407 + 84.65) / Sqm

= Rs. 492.00/Sqm

3. Same as above 2 but 100 mm thick

Add extra

Interlocking tiles 1750 (16-12)/No.

Rs. 7000.00

Water charges 1.5% on Rs. 7000.00

Rs. 105.00

Total Rs. 7105.00 Or 142.00/Sqm

Total Rate (492.00 + 142.00) = Rs. 634.00/Sqm

*Signature*

*Signature*



उपरोक्त व्यवस्था के बारे में निम्न प्रक्रिया सुनिश्चित की जाती है:-

1. नगर निकाय की सड़कें Inter Lock टाईलों की ही बनेंगी।
2. नगर निकाय की सम्बन्धित सड़कें, चाहे अवस्थापना निधि के माध्यम से अथवा समाज कल्याण विभाग, 12वें वित्त आयोग, दैवीय आपदा प्रबन्धन, सांसद/विधायक निधि, पर्यटन, रिवाल्विंग फण्ड (तथा भविष्य में द्वितीय वित्त आयोग) से धनराशि प्राप्त हो रही है या अपनी ही धनराशि से बना रहे हों, तब भी वह उपरोक्तानुसार टाईल्स की ही बनेंगी।
3. सम्बन्धित सड़कों के निर्माण में सड़क का प्रकार और मानक आगणन (Standardized Estimate) के अनुसार ही कार्य करवाना सुनिश्चित करें। जहाँ पर सी0सी0 सड़कों की धनराशि स्वीकृत हो चुकी है, वहाँ सी0सी0 सड़कों पर कार्य न करते हुए मानक/आगणन के अनुसार टाईल्स की सड़कों के टेण्डर आमंत्रित कर नियमानुसार निर्माण कार्य प्रारम्भ करवा दिये जायें। मानक/आगणन के अन्तर की धनराशि सम्बन्धित विभाग द्वारा उपलब्ध न कराये जाने पर नगर विकास विभाग वहन करेगा।
4. उपरोक्तानुसार टाईल्स की सड़क निर्माण के लिए मानक आगणन का प्रयोग किया जा रहा है। चूँकि यह मानक आगणन तकनीकी दृष्टि से लोक निर्माण विभाग द्वारा ही तैयार करवाये गये हैं। अतएव तकनीकी स्वीकृति की आवश्यकता नहीं रह जाती है क्योंकि नगर निकाय का आगणन लम्बाई, चौड़ाई एवं वर्गमीटर के आधार पर बनाया जायेगा। अतएव अपेक्षा की जाती है कि detailed estimate सूचनार्थ सम्बन्धित अधीक्षण अभियन्ता, लोक निर्माण को भेज दें।
5. भविष्य में सड़कों के लिए मानक आगणन पर आधारित estimate के लिए सम्बन्धित अधीक्षण अभियन्ता/अधिशासी अभियन्ता के प्रतिहस्ताक्षर की आवश्यकता नहीं है। अधिशासी अधिकारी, सिविल अभियन्ता तथा मा0 अध्यक्षगण सड़कों की लम्बाई/चौड़ाई प्रमाणित करेंगे।

*[Signature]*  
30/8/2016



Interlocking Concrete Block Pavement :- निर्माण के सम्बन्ध में निम्नवत अवगत कराना है:-

Interlocking Concrete Block Pavement का प्रयोग निम्न परिस्थितियों में उपयुक्त है:-

1. Footpaths and Side-walks.
2. Cycle Tracks.
3. Residential Streets.
4. Car Parks.
5. Fuel Stations.
6. Rural Roads through villages.
7. Highway Rest Areas.
8. Toll Plaza.
9. Bus Depots.
10. Approaches to railway Level Crossing.
11. Intersections.
12. City Streets.
13. Truck Parking Areas,
14. Industrial floors.
15. Urban Sections of Highways.
16. Road repairs during Monsoon.
17. Container Depots.
18. Port Wharf and Roads.
19. Roads in high altitude areas.

2. Interlocking Concrete Block Pavement के Advantage निम्नवत है:-

- (i) Since the blocks are prepared in the factory, they are of a very high quality, thus avoiding the difficulties encountered in the quality control in the field.
- (ii) Concrete block pavement restrict the speed of vehicles to about 60 km per hour, which is an advantage in city streets and intersection.
- (iii) Because of the rough surface, these pavements are skid-resistant.

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18/2/2006

ड्रेन का स्ट्रक्चरल कम्पोनेन्ट विवरण तथा प्रति वर्ग मीटर लागत आंकलन प/क पर दृष्टव्य है।

Interlocking Concrete Block Pavement प्रयोग के limitations निम्नवत

हैं:-

- (i) Concrete block pavements cannot be used for high speed facilities.
- (ii) The riding quality is reasonably good for low-speed traffic, but is inferior to that observed on a machine laid bituminous or concrete pavement.
- (iii) The noise generated is high, 5-8 dB(A) higher than bituminous surfaces.
- (iv) A very good attention to pavement drainage is needed because the water can seep through the joints.

Indian Roads Congress के द्वारा वर्ष 2004 में Interlocking concrete block pavement हेतु जारी गाइड लाइन्स का कोड IRC:SP:63-2004 से जारी किया गया है। अतः सीमेंट कंक्रीट सड़क का निर्माण जहाँ सम्भव न हो वहाँ Interlocking concrete block pavement की विशिष्टियाँ अपनाई जा सकती हैं।

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Sent  
30/8/2006

Dr. Arif

मुख्य अभियन्ता स्तर-1  
लोक निर्माण विभाग, उत्तरांचल  
देहरादून-248 001



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**RATES (BASED ON BASIC RATES OF DEHRADUN) INTERLOCKING CONCRETE TILES PAVEMENTS FOR VARIOUS USE**

S.N	Type of use of Interlocking tiles	Structural Components	Thickness in MM	Overall thickness in MM	Unit	RATE (in Rs.)	REMARK
1	PEDESTRAIN (a) Footpath/cycle track	SUB BASE- R.B.M. Drainage layer BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 50 30 60	290	Sqm.	580.00	NOTE: (a) These rates are given for guidance & estimating purpose only.
	(b) Road side raised Footpath (1.50M. wide)	SUB BASE- R.B.M. Drainage layer BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 50 30 60	290	Metre	1100.00	(b) Rates are derived on basic rates for DEHRADUN approved by S.E. 24 th circle P.W.D. Dehradun.
2	SCOOTER	SUB BASE- R.B.M. Drainage layer BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 75 50 75	350	Sqm.	720.00	(c) Rates can be used for estimating at rail head and other plain area, eg- Dehradun, Rishikesh, Haridwar, Kotdwara, Ramnagar, Kathgodam, Tanakpur.
3	LIGHT VEHICLE	SUB BASE- R.B.M. Drainage layer W.B.M BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 75 100 50 75	450	Sqm.	820.00	(d) Rates for Hill area Attributed Distance Index can be added on these rates as per P.W.D. C.E.-1's letter No.3087/SSBharwad 2005 Dt.12/12/2005
4	TRUCKS/COMMERCIAL VEHICLE	SUB BASE- R.B.M. Drainage layer W.B.M BASE- 1:6:12 C.C.(M-5) Sand bed Interlocking concrete tiles (M-30)	150 150 100 50 100	550	Sqm.	1025.00	(e) For estimation rates of different items shall be derived on local P.W.D. Schedule of Rates of Market Rates wherever are less.
5	K.C. DRAIN	650mm wide (M-20) kerb stone 400x300x150x40mm thick c/c 1:2:4 over 150mm thick M-100 Brick work with 75mm thick base c/c 1:3:6 in 500 mm width)	14000			535.00	

Executive Engineer  
 Provincial Division  
 P.W.D., Dehra Dun  
 24 अक्टूबर, 2017  
 जल संवर्धन विभाग  
 देहरादून



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m

RATES AT DEHRADUN

S. No.	Item of Works	Rates of Dehradun	Price escalation	Total Rate (3+4)
1.	Earthwork in excavation/embankment	Rs. 114.00/Cum	-	Rs. 114.00/Cum
2.	Granular subbase (Soling coat)	Rs. 640.00/Cum	-	Rs. 640.00/Cum
	R.B.M.	Rs. 377.00/Cum	-	Rs. 377.00/Cum
	Cement Concrete (M-5)	-	-	Rs. 1758.00/Cum
3.	Cement concrete (M-7.50)	Rs. 1880.00/Cum	Difference in cost of cement (250 - 198 = 52) per bag for 3.43 bags = Rs. 178.00	Rs. 2058.00/Cum
4.	C.C. (M-10) Rate for M-15 = Rs. 2650.00 Deduct cost of cement (6.62-4.49) bags @ 198.00/bag (-) Rs. 422.00 Total Rs. 2228.00	2228.00/Cum	Add as above item No.3 for 4.49 bags @ 52 = Rs. 233.00	Rs. 2461.00/Cum
5.	C.C. (M-15)	Rs. 2650.00	Add as above item No.3 for 6.62 bags @ 52 = Rs. 344.00	Rs. 2994.00/Cum
6.	M-100 Brick work in 1:6	Rs. 1790.00	Add as above item No.3 for 1.26 bags @ 52 = Rs. 65.00	Rs. 1855.00/Cum
7.	S/F Kerb stone (M-20) 400x300x150mm	Rs. 60.00 (Market Rate)	Add as above item No.3 for 0.15 bags @ 52 = Rs. 7.80	Rs. 67.80 Say 68.00 each
8.	Sand (For bed /joints)	Rs. 626.00/Cum	-	Rs. 626.00/Cum
9.	Interlocking Concrete tiles (In two Hexazonal shape @ 31 Nos./Sqm) M-30	Market Rate		
	(a) 60mm thick		-	Rs. 10.00 each
	(b) 75mm thick		-	Rs. 12.00 each
	(c) 80mm thick		-	Rs. 13.00 each
	(d) 100mm thick		-	Rs. 16.00 each

*[Signature]*  
**ASSISTANT ENGINEER**  
 PROVINCIAL DIVISION  
 P.W.D., DEHRADUN

*[Signature]*  
**Executive Engineer**  
 Provincial Division  
 P.W.D., Dehra Dun



(7)

P/F 60mm thick interlocking concrete tiles (M-30) with cost of sand in bed and joints including cost of all material, labour, T&P complete (Sand bed 30mm thick)

(Taking area 50 Sqm)

(A) Material			
(i)	Tri Hexagonal interlocking concrete tiles (50x31) = (1550 Nos. + 10% Wastage) = 1750 Nos. @ Rs. 10.00/Each		Rs. 17500.00
(ii)	Sand (in Bed & joints) 0.03x50 = 1.50 10% for joints = 0.15 Total = 1.65 Add 2% wastage = 0.03 Total 1.68 @ Rs. 626.00		Rs. 1051.68 Rs. 18551.68
(B) Labour			
	Pavior 1 No. @ Rs. 163.00	163.00	
	Helper 1 No. @ Rs. 112.00	112.00	
	L.S. for T&P /Vibrating plate capacitor	100.00	
	Total	375.00	
	Add 10% C.P.	37.50	
	Total	412.50	Rs. 412.50
(C)	Water charges @ 1.5% on (A+B)		Rs. 284.46
(D)	Edge restraint (C.C. M-15) (2x10.00+2x5.00) x 0.10x0.125 = 0.375 Cum @ Rs.2994.00/Cum		Rs. 1122.75
	Total (A+B+C+D)		Rs. 20371.39
	Hence Rate Per Sqm 20371.39 / 50		Rs. 407.42/Sqm
		Say	Rs. 407.00/Sqm

2. Same as above but 75mm thick over 50mm sand Bed

(i)	Interlocking tiles 1750 Nos. @ (12-10) /each	Rs. 3500.00	
(ii)	Sand (2.75 - 1.68 cm) @ Rs. 626.00/each	Rs. 669.32	
(iii)	Water charges 1.5% on (i+ii)	Rs. 62.55	
	Total	Rs. 232.37 or	8.5/Sqm
	Net Rat (407 + 84.65) / Sqm		
	= Rs. 492.00/Sqm		

3. Same as above 2 but 100 mm thick

	Add extra		
	Interlocking tiles 1750 (16-12)/No.	Rs. 7000.00	
	Water charges 1.5% on Rs. 7000.00	Rs. 105.00	
	Total	Rs. 7105.00 Or	142.00/Sqm

Total Rate (492.00 + 142.00) = Rs. 634.00/Sqm

*Extra*

*HO*

(C-7) Light Vehicle

- (a) Excavation/Subgrade  
 $1.00 \times 1.00 \times 0.450 = 0.450 \text{ Cum @ Rs. 114.00/Cum}$  Rs. 51.30
- (b) RBM Drainage layer 0.150 Cum @ Rs. 377.00/Cum Rs. 56.55  
WBM 0.075 Cum @ Rs. 1758.00/Cum Rs. 50.62
- (c) C.C. (M-5.00)  
 $1.00 \times 1.00 \times 0.10 = 0.10 \text{ Cum @ Rs. 1758.00/Cum}$  Rs. 175.80
- (d) P/F 75mm thick interlocking tiles with sand in bed  
& joints (Bed 50mm) Rs. 492.00

Total Rs. 826.27/Sqm  
Say Rs. 820.00/Sqm

(D) Commercial Traffic / Trucks etc.

- (a) Excavation/Subgrade  
 $1.00 \times 1.00 \times 0.550 = 0.55 \text{ Cum @ Rs. 114.00/Cum}$  Rs. 62.70
- (b) R.B.M. Drainage Layer  
 $1.00 \times 1.00 \times 0.50 = 0.50 \text{ Cum @ Rs. 377.00/Cum}$  Rs. 56.55
- (c) WBM  
 $1.00 \times 1.00 \times 0.15 = 0.15 \text{ Cum @ Rs. 640.00/Cum}$  Rs. 96.00
- (d) C.C. (M-5.00)  
 $1.00 \times 1.00 \times 0.10 = 0.10 \text{ Cum @ Rs. 1758.00/Cum}$  Rs. 175.80
- (e) P/F 100mm thick interlocking tiles with sand in bed  
& joints (Bed 50mm) Rs. 634.00

Total Rs. 1025.05/Sqm  
Say Rs. 1025.00/Sqm

(E) Construction of K.C. Drain

- (a) Excavation  
 $1.00 \times 0.65 \times 0.30 = 0.195 \text{ Cum @ Rs. 114.00/Cum}$  Rs. 22.23
- (b) C.C. (M-10)  
 $1.00 \times 0.65 \times 0.075 = 0.049 \text{ Cum @ Rs. 2461.00/Cum}$  Rs. 120.59
- (c) Brick Work  
 $1.00 \times 0.50 \times 0.115 = 0.0575 \text{ Cum @ Rs. 1855.00/Cum}$  Rs. 106.66
- (d) Kerb stone (C.C. M-20)  
400x300x150mm size = 3.33 Nos. @ Rs. 68.00/each Rs. 226.44
- (e) C.C. (M-15)  
 $1.00 \times 0.50 \times 0.04 = 0.02 \text{ Cum @ Rs. 2994.00/Cum}$  Rs. 59.88

Total Rs. 535.00/RM  
Say Rs. 535.00/RM

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10/08/06